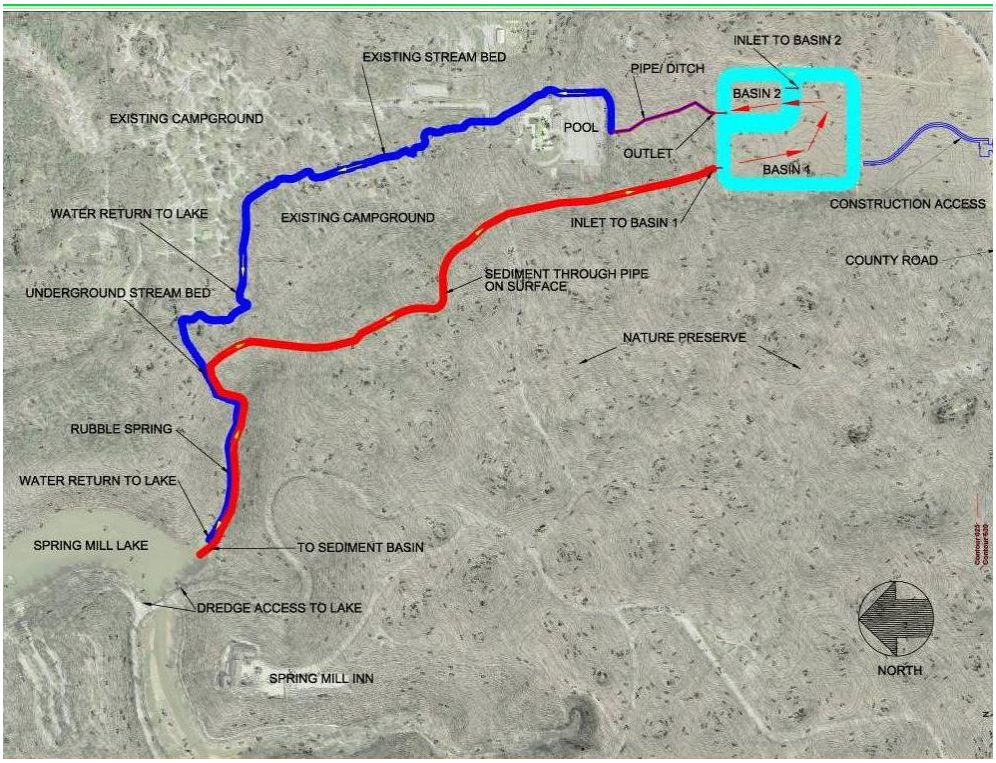
# Spring Mill Lake Restoration Project 2014

The lake at Spring Mill State Park has accumulated 85 years of soil, organic material and debris that washed into the lake from its three tributaries and 9,600-acre watershed. Over time, the accumulated material has reduced the capacity of the lake to support recreational activities and aquatic wildlife. The park has plans to dredge the lake.

**Where will the dredge material go?**
A two-stage settling basin will be constructed in a 40-acre tract of the park above the lake. That area is currently fields and meadows. The dredge material will be pumped through pipes into this basin allowing enough time for sediment to settle out. The clear water will be returned to the lake.




**This is sinkhole country. How do you know that the dredge material you remove won't end up back in the lake?**
The site of the basin has been investigated by taking soil borings to determine the depth of soil and the distance to bedrock. In one area that is near a sinkhole, geotextile fabric and 8 inches of stone will be installed as a barrier.

**What will happen to the dredge material when the project is done?**
That has not been determined, although several options have been discussed. The material will be very high in calcium, so it will not be good top soil. We have talked about using the material to build a sledding hill, but no official plans are in place.

**How much will it cost?**
The estimated cost for the entire project is $700,000. Phase I is estimated to cost $500,000.

**How long will it take?**
The project will occur in two phases over two to three years. Approximately 40,000 cubic yards of dredge material will be removed. Each phase may take 3-4 months.

**When will the project start?**
The basin will be constructed in early fall. We anticipate the project will begin in late 2014.

**Will I be able to fish/access the lake while it is going on?**
Yes, you will continue to have lake access. Some areas may be temporarily closed.

**Will it interfere with my visit?**
There may be some noise from the dredging equipment. The piping will, in part, be laid on an existing mountain bike trail, which will be closed during the project.

**Will there be a difference in how the lake looks after it is done?**
The lake is now about 23 acres, and the acreage will not change. However, the average depth is about 2 feet now and the dredging project will result in an average depth of 6 feet. The increased depth will improve access for recreation and provide better habitat for fish and other aquatic wildlife.

**Will you be restoring the beach and other features we remember?**
There are plans for a small beach, a small boat ramp and eventually a boat rental with paddleboats and canoes.

**Has this been done here at Spring Mill before?**
Yes, it was dredged in 1977-78 and about 14,000 cubic yards of dredge material were removed. It was deposited on what is now the playfields adjacent to the Pioneer Village.

**What equipment will be used?**
A hydraulic dredge will be used, winching itself forward and backward on a fixed wire rope cable anchored at both ends. The dredge excavates and pumps material with nearly equal productivity in both directions. Generally 9 to 12 inches of sediment are removed with each pass until the defined dredging depth is reached.


Dredge similar to what will be used at Spring Mill at work at Tri-Lakes.

**How will the project affect fish and wildlife in the park?**
There may be some impacts to aquatic wildlife, but the end result will provide a much more attractive place for fish, turtles, river otters, waterfowl and other wildlife. The piping will be constructed in a manner that provides migration and access routes at regular intervals for salamanders and other herptiles. Selective tree removal may need to occur during the placement of the piping, and that will be done in compliance with the Indiana Bat guidelines.

**What permits are required so you can do this?**
We have obtained all required permits. These include a U.S. Army Corps of Engineers Wetlands permit , an Indiana Department of Environmental Management Water Quality Certificate (401 permit), a DNR Division of Water Construction in a Floodway permit, and a Rule 5 permit which relates to erosion control. Archaeological clearance was obtained through the DNR Division of Historic Preservation & Archaeology.

**Has this been done to other state park lakes?**
Yes. The lake at Whitewater Memorial State Park has been dredged. You can read about this project at mudcat.com/case-studies/lake-white-water-11.html.

**Is this a permanent solution to the siltation issue?**
No. It is likely to occur again, but this plan is designed to remove enough silt that it won't need to be dredged again for a number of years.

**Have other options been considered?**
There have been discussions for a number of years about alternatives to dredging, ranging from removing the dam and restoring the stream to allowing the lake to silt in naturally. The lake's long history for visitors and the value of the lake for passive recreation makes this the best option for the park's future.

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